

Subject Index to Volume 8

A

- Acclimation: *see* specific subject and site
 Acetoacetate, glucose flux and ketosis effects, children and adults, E373
 Acetylcholine, nervous control, somatostatin secretion, pancreatic, E542
 Adenosine, lipolysis and respiration control, brown adipose tissue (hamster), E555
 Adenosine deaminase, lipolysis and respiration control, brown adipose tissue (hamster), E555
 Adenosine monophosphate, cyclic changes, mammary gland and milk (guinea pig), E549
 exercise effects, glycogen metabolism, E166
 pancreatic and phospholipid metabolism, anterior pituitary cells, E587
 Adenosine triphosphate, membrane potential, adipocyte, hormonal modulation of, E266
 Adenylate cyclase, kidney, upregulation of, estrogen effects (hen), E273
 Adipocytes
 insulin resistance, chronic uremia, E178
 membrane potential, hormonal modulation of, E266
 ribosomes, protein synthesis, and lipoprotein lipase, insulin regulation of, E121
 Adipose tissue
 brown: *see* Brown fat
 fatty acid synthesis in, physical training effects, E8
 lipoprotein lipase activity, hormone-treated and pregnant rats, E132
 long-term food deprivation, refeeding and, E74
 Adrenal gland, plasma adrenocorticotropin and corticosterone, housing and cannulation effects, E515
 Adrenal glomerulosa cells, calcium efflux from, angiotensin-mediated, E281
 Adrenaline: *see* Epinephrine
 Adrenal medulla, responses, sympathetic nervous system and, ischemic injury, E67
 Adrenal zona glomerulosa, protein, potassium-induced, aldosterone biosynthesis relations, E449
 β -Adrenergic blockade: *see* Blockade
 Adrenergic mechanism, somatostatin secretion, pancreatic, E542
 α -Adrenergic stimulation, glucose production, hepatic, E616
 Adrenocorticotropin
 plasma, housing and chronic cannulation effects, E515
 triphasic pattern of secretion, after adrenalectomy, E60
 vasopressin and blood pressure and, during hypoxia, E489
 Alanine
 gluconeogenesis, epinephrine and, E294
 glycogen and phosphorylase and, liver, E521
 Aldosterone
 biosynthesis, potassium-induced adrenal

- protein relations, E449
 production, angiotensin, calcium efflux and, E281
 renin and, verapamil effects, E401
 response, muscle fibers (barnacle), E230
 Alloxan, toxicity, pancreatic islet cells, neonate, E417
 Amino acids
 dichloroacetate effects, diabetes, E94
 protein synthesis regulation, lung,
 Aminooxyacetate, ionic response impairment, pancreatic islets, E38
 Amniotic fluid: *see* Fluid
 Angiotensin
 calcium efflux and, adrenal glomerulosa cells, E281
 insulin suppression of, extracellular calcium effects, E531
 Anticonvulsants, vitamin D metabolism and, liver, E55
 Antiestrogen, lipoprotein lipase activity, uterine and adipose, E132
 Arginine, insulin release, gastric inhibitory polypeptide effects, E114
 L-Arginine methyl ester, stimulation, pancreatic β -cells, E338
 Arginine vasopressin: *see* Vasopressin
 Atropine
 naloxone interaction, anterior pituitary hormone secretion and, E502
 nervous control, somatostatin secretion, pancreatic, E542
 Autonomic nervous system, control, somatostatin secretion, pancreatic (pig), E542
 Autoradiography, fasting and refeeding effects, adipose tissue, E74
 Awake state, pancreatic polypeptides, hepatic extraction of, E401

B

- Blockade
 β -, glycogen metabolism, exercise, E166
 adrenergic, glucose production, hepatic, E616
 β -adrenergic, lateral hypothalamic lesion-induced thermogenesis and, E535
 Blood
 constituents: *see* specific constituent
 pH: *see* pH
 Blood-brain barrier
 glucose transport, blood pH and ischemia effects, E384
 keto acid transport across, E253
 Blood pressure: *see also* Pressure
 vasopressin and adrenocorticotropin and, during hypoxia, E489
 Body, weight: *see* Weight
 Bone, potassium effects, models, E303
 Brain
 glucose metabolism, moderate hypoxia and reoxygenation, E365
 glucose transport, blood pH and ischemia effects, E384
 iodothyronine homeostasis, hypo- and hyperthyroidism, E185
 uptake of metabolic substrates, E253
 Breast, milk and, adenosine monophos-

- phate, cyclic changes (guinea pig), E549
 Brown fat
 abnormal sympathetic function, obesity and, E87
 cellularity, physical training effects, E8
 control of lipolysis and respiration, adenosine (hamster), E555
 diminished sympathetic nervous system activity, genetic obesity, E148
 norepinephrine-induced thermogenesis, suppression by fasting, E582

C

- Calcium
 efflux, angiotensin-mediated, adrenal glomerulosa cells, E281
 extracellular, renin secretion and, E531
 homeostasis
 kidney adenylate cyclase upregulation, E273
 metabolites of vitamin D₃ and, E359
 hyperosmolarity, cardiac function and, diabetes, E568
 metabolism, diabetic heart, E560
 parathyroid hormone secretion and, E468
 retention, intestinal wall, glucocorticoid effects, E143
 verapamil effects, E410
 Calcium ions
 inflow, aminooxyacetate effects, pancreatic islets, E38
 insulin effects, fat cell ribosomes, E121
 Candidate hormone, secretion, PHI effects, pancreas, E313
 Cannulation
 chronic, adrenocorticotropin and corticosterone effects, E515
 cold exposure and starvation effects, glucose and insulin, E575
 Carnitine, working heart, fetal (pig), E19
 Carnitine palmitoyltransferase, hepatic mitochondrial function, lean and obese, E239
 Catecholamines
 hypothalamic and neurointermediate lobe, monosodium glutamate effects, E261
 metabolism, obesity and, E87
 Cells: *see* specific type and site
 Cellularity, adipose tissue, physical training effects, E8
 Cerebral ventricles, atropine and naloxone interaction, anterior pituitary hormone secretion, E502
 Chlorpromazine, membrane potential and hormone secretion, parathyroid cells, E102
 Chromatography
 gas, mass spectrometry, glucose production rate and recycling, E476
 neurotensin, organ and plasma metabolism (sheep), E457
 substrate turnover rate calculation, E308
 Chylomicrons
 plasma clearance of vitamin D₃, intestinal lymph, E326
 vitamin D₃, intestinal lymph, E463

- Circadian pattern, weight gain, endocrine basis for, E246
 Circadian rhythm: *see* Rhythm
 Clearance
 chronic, plasma vasopressin, E611
 metabolic, pancreatic polypeptides, E171
 plasma, vitamin D₃, intestinal lymph, E326
 Cold
 acclimation, fasting effects, brown adipose tissue, E582
 exposure
 starvation and, glucose tolerance and insulin response, E575
 sympathetic nervous system activity and, genetic obesity, E148
 Corticosteroids, vasopressin and blood pressure and, during hypoxia, E489
 Corticosterone
 hypothalamic hyperinsulinemia, obesity and, E194
 plasma, housing and chronic cannulation effects, E515
 potassium-induced, aldosterone biosynthesis and, E449

D

- 5'-Deiodinase, activity, perfused kidney, E220
 Deoxycorticosterone, potassium-induced, aldosterone biosynthesis and, E449
 2-Deoxyglucose, mobilization, hypothalamic control, E332
 Deoxyribonucleic acid, synthesis, fasting and refeeding effects, adipose tissue, E74
 Depolarization, membrane potential, parathyroid hormone secretion and (bovine), E102
 Development
 β -cells, microtubule-altering agent effects, E391
 nuclear triiodothyronine receptors, pituitary, E81
 Dexamethasone, calcium retention and, intestinal wall, E143
 Dextran, protein synthesis and, lung, E508
 Diabetes
 calcium metabolism, heart, E560
 dichloroacetate, metabolic effects of, E94
 glucoregulation, glucose suppression effects, E424
 heart function, hyperosmolarity and, E568
 insulin-induced obesity, hypophagia, E211
 insulin infusion, glucose loading and, E200
 protein metabolism and, skeletal muscle, diaphragm, and heart, E604
 spontaneous, cardiac glycogen metabolism in, E379
 Diabetes mellitus
 dichloroacetate, metabolic effects of, E94
 insulin agonist and, liver, E483
 Diaphragm, protein metabolism, diabetes and, E604
 Dichloroacetate, metabolic effects, diabetes, E94
 Diet: *see* Feeding
 Dopamine β -hydroxylase, abnormal sympathetic function, obesity and, E87
 Dose-response relations, aldosterone transport, muscle fibers (barnacle), E230

E

- Endocrine gland, changes, portacaval anastomosis, female, E288
 β -Endorphins, triphasic pattern of secretion, after adrenalectomy, E60
 Energy expenditure, defect, E107
 Enzymes: *see* specific enzyme
 Epinephrine
 calcium metabolism and, diabetic heart, E560
 cardiac glycogen metabolism and, spontaneous diabetes, E379
 glucose production and, hepatic, E616
 hepatic glucose production, role of gluconeogenesis, E294
 sensitivity, metabolic rate and, women, E431
 sympathoadrenal responses, ischemic injury, E67
 Estrogen
 kidney adenylate cyclase, upregulation of (hen), E273
 lipoprotein lipase activity, uterine and adipose, E132
 Estrous cycle, hormone changes, portacaval anastomosis, female, E288
 Euglycemic clamp, insulin sensitivity and, E1
 Exercise
 fasting and starvation, ketone body turnover, E318
 glycogen metabolism during, blockade effects, E166
 leg, fasting and, splanchnic glucose metabolism, E443
 physical training, fatty acid synthesis in adipose tissue and, E8
 wheel running, fatty acid synthesis in adipose tissue and, E8
 Extensor digitorum longus muscle, protein metabolism, diabetes and, E604

F

- Fasting
 after exercise, ketone body turnover, E318
 cold exposure and starvation effects, glucose tolerance and insulin response, E575
 exercise and, splanchnic glucose metabolism, E443
 long-term food deprivation, refeeding and, adipose tissue cells, E74
 norepinephrine-induced thermogenesis suppression, brown adipose tissue, E582
 refeeding and, insulin role, thermogenic responses, E160
 weight gain after, endocrine basis for, E246
 Fat cells: *see* Adipocytes
 Fatty acids
 adenosine effects, brown fat metabolism (hamster), E555
 free
 mobilization, hypothalamic control, E332
 modulation, adipocyte metabolism, E266
 obesity, hypophagia, E211
 oxidation, hepatic mitochondrial function, E239
 synthesis, adipose tissue, physical training and, E8

- utilization, working heart, fetal (pig), E19
 Feeding
 fasting and refeeding, insulin role, thermogenic response, E160
 food deprivation and refeeding effects, adipose tissue cells, E74
 hypothalamic hyperinsulinemia, obesity and, glucocorticoid effects, E194
 insulin-induced obesity, hypophagia during recovery from, E211
 ketogenic diet, glucose flux and, children and adults, E373
 weight gain after fasting, endocrine basis for, E246
 Fetomaternal compartments, acute-phase α_2 -macroglobulin distribution, E138
 Fetus: *see also* Lactation; Pregnancy
 cardiovascular responses, arginine vasopressin (lamb), E24
 fetomaternal compartments, distribution of acute-phase α_2 -macroglobulins, E138
 glucose uptake, maternal glucose production (sheep), E347
 working heart, fatty acid and glucose utilization (pig), E19
 Fluid, amniotic, arginine vasopressin, fetal responses (lamb), E24
 Follicle-stimulating hormone, secretion, atropine and naloxone interactions, E502
 Fructose, glycogen synthase and phosphorylase and, liver, E521
- G**
- Galactose, glycogen and phosphorylase and, liver, E521
 Gas, exchange, energy expenditure defect, E107
 Gastric inhibitory polypeptides: *see* Polypeptides
 Gastrocnemius muscle, protein metabolism, diabetes and, E604
 Glucagon
 glucose production and, hepatic, E616
 paracrine role in, pancreatic, E598
 secretion
 alloxan toxicity and, pancreatic islet cells, E417
 PHI effects, pancreas, E313
 Glucocorticoids
 adrenal, hypothalamic hyperinsulinemia and obesity, E194
 calcium retention and, intestinal wall, E143
 housing and cannulation effects, E515
 muscle fiber response (barnacle), E230
 negative feedback, adrenalectomy and, E60
 Gluconeogenesis
 dichloroacetate effects, diabetes, E94
 hepatic, exercise and fasting effects, E443
 hepatic glucose production, epinephrine-stimulated, E294
 Gluconeogenic enzyme, activity, liver and kidney, ventromedial hypothalamic lesion effects, E14
 Glucoregulation, glucose suppression of, diabetes, E424
 Glucose
 alloxan toxicity and, pancreatic islet cells, E417

aminoxyacetate effects, pancreatic islets, E38
 blood, insulin sensitivity, euglycemic clamp, E1
 fasting and refeeding, thermogenic responses, E160
 flux, ketosis and, children and adults, E373
 glycogen synthase and phosphorylase and, liver, E521
 intraduodenal loading, insulin-infused diabetes, E200
 metabolism
 cerebral, during hypoxia and reoxygenation, E365
 during lactation, E351
 parathyroid hormone secretion and, E468
 splanchnic, exercise and fasting, E443
 pancreatic polypeptides and, liver, awake state, E401
 paracrine role in, pancreatic, E598
 production
 α -adrenergic stimulation of, hepatic, E616
 insulin agonist and, liver, E483
 maternal (sheep), E347
 production rate, recycling and, E476
 square-wave stimulation, prostaglandin E role, E591
 suppression, glucoregulation and, diabetes, E424
 tolerance
 cold exposure and starvation effects, E575
 endocrine basis for weight gain, E246
 transport
 cellular basis of insulin resistance, chronic uremia, E178
 cerebral, blood pH and ischemia effects, E384
 turnover rate, stable isotope tracer studies, E308
 U-¹³C-labeled, carbon recycling and turnover with, E476
 uptake, uteroplacental (sheep), E347
 utilization, working heart, fetal (pig), E19
 Glucose aldononitrile pentacetate, carbon recycling, turnover and, E476
 Glucose analogues, glycogen synthase and phosphorylase and, liver, E521
 Glutamate dehydrogenase, islet, L-leucine methyl ester stimulation of, E338
 Glycemia, fatty acid mobilization, hypothalamic control of, E332
 Glycerol, insulin-induced obesity, hypophagia, E211
 Glycogen
 metabolism
 β -blockade effects, during exercise, E166
 cardiac, spontaneous diabetes and, E379
 cerebral, after hypoxia, E365
 Glycogen synthase
 cardiac metabolism, spontaneous diabetes, E379
 liver, response to glucose and glucose analogues, E521
 Glycolytic intermediates, working heart, fetal (pig), E19
 Glycolysis, cerebral, hypoxic and reoxygenation, E365
 Gonadotropins, hormone changes, portaca-

val anastomosis, female, E288
 Growth hormone, secretion, atropine and naloxone interactions, E502
 Growth hormone-releasing factor, pancreatic, phosphatidylinositol labeling, pituitary cells, E587

H

Heart
 diabetic, calcium metabolism in, E560
 function, hyperosmolarity and, diabetes, E568
 glycogen metabolism, spontaneous diabetes, E379
 protein metabolism, diabetes and, E604
 working, fatty acid and glucose utilization, fetal (pig), E19
 Hemorrhage, housing and cannulation effects, E515
 Hepatic vein, catheterization, epinephrine effects, E294
 Hexose monophosphate, shunt: *see* Shunt
 Hormones: *see also* specific hormone
 fatty acid modulation, adipocyte metabolism, E266
 secretion, PHI effects, pancreas, E313
 β -Hydroxybutyrate
 cerebral glucose metabolism, after hypoxia, E365
 glucose flux and ketosis effects, children and adults, E373
 25-Hydroxyvitamin D: *see* Vitamin D
 25-Hydroxyvitamin D₃: *see* Vitamin D₃
 Hyperinsulinemia
 hypothalamic, obesity and, adrenal glucocorticoid effects, E194
 obesity, decreased insulin clearance and, E155
 Hyperosmolarity, cardiac function and, chronic diabetes, E568
 Hyperthyroidism, iodothyronine homeostasis during, brain, E185
 Hypoglycemia
 dichloroacetate effects, diabetes, E94
 glucose production and, α -adrenergic stimulation, liver, E616
 Hypophagia, metabolic concomitants of, recovery of insulin-induced obesity, E211
 Hypothalamic lesion, thermogenesis, β -adrenergic blockade effects, E535
 Hypothalamus
 control, free fatty acid mobilization, E332
 lateral, thermogenesis, β -adrenergic blockade effects, E535
 ventromedial
 hyperinsulinemia, obesity and, glucocorticoid effects, E194
 lesion, endocrine basis for weight gain after, E246
 Hypothyroidism
 eutopic and heterotopic, pituitary, E32
 iodothyronine homeostasis during, brain, E185
 nuclear triiodothyronine receptors, pituitary development and, E81
 Hypoxia
 glucose metabolism during, cerebral, E365
 glucose transport and, brain, E384
 vasopressin, adrenocorticotropin and blood pressure during, E489

I

Immunoreactivity, somatostatin-like, pancreatic, E598
 Incretin, insulin release and, leucine- and arginine-stimulated, E114
 Insulin
 action, fat cell ribosomes and, E121
 biphasic pattern, role of endogenous prostaglandin E, E591
 cardiac glycogen metabolism and, spontaneous diabetes, E379
 decreased clearance, hyperinsulinemia of obesity, E155
 deficiency, glucagon suppression, diabetes, E424
 diabetic heart, calcium metabolism in, E560
 fasting and refeeding, thermogenic responses, E160
 glucose production and, hepatic, E616
 hypothalamic hyperinsulinemia, obesity and, E194
 insulin agonist, liver and, E483
 isotope, stable, tracer, glucose, E476
 ketone body turnover and, fasting, after exercise, E318
 [Leu^{B24}], liver and, E483
 monocyte receptors, regulation of, E494
 paracrine role in, pancreatic, E598
 postperipheral infusions, glucose loading and, diabetes, E200
 protein metabolism and, muscle, diabetes, E604
 protein synthesis regulation, lung, E508
 release
 aminoxyacetate effects, pancreatic islets, E38
 endocrine basis for weight gain, E246
 leucine- and arginine-stimulated, gastric inhibitory polypeptide effects, E114
 renin secretion and, extracellular calcium effects, E531
 resistance: *see* Resistance
 response, cold exposure and starvation effects, E575
 secretion
 alloxan toxicity and, pancreatic islet cells, E417
 β -cells during development, E391
 lactation, E351
 L-leucine methyl ester stimulation of, E338
 PHI effects, pancreas, E313
 sensitivity, euglycemic clamp, E1
 Intestinal wall, calcium retention in, glucocorticoid effects, E143
 Iodocompounds, nervous system, brain, hypo- and hyperthyroidism, E185
 Iodothyronine
 excretion, conversion of thyroxine to triiodothyronine, perfused kidney, E220
 homeostasis, brain, during hypo- and hyperthyroidism, E185
 Ions, flux, aminoxyacetate effects, pancreatic islets, E38
 Ischemia
 adrenal medullary responses, sympathetic nervous system, E67
 glucose transport, cerebral, E384
 Isoproterenol, adenosine effects, brown adipose tissue (hamster), E555

Isotope tracer studies, substrate turnover rate calculation, E308

J

Journals in the eighties, E529

Juxtaglomerular apparatus, verapamil effects, renin and aldosterone, E410

K

Keto acid, transport, across blood-brain barrier, E253

Ketogenesis, hepatic mitochondrial function, lean and obese, E239

2-Ketoisocaproate, aminooxyacetate effects, pancreatic islets, E38

Ketone bodies
brain uptake, metabolic substrates, E253

turnover, fasting and starvation, after exercise, E318

Ketones, insulin-induced obesity, hypophagia, E211

Ketosis
glucose flux and, children and adults, E373

postexercise, fasting and starvation, E318

Kidney
adenylate cyclase, upregulation of, estrogen effects (hen), E273

clearance, neurotensin (sheep), E457

failure, cellular basis of insulin resistance, chronic uremia, E178

gluconeogenic enzyme activity, ventromedial hypothalamic lesion effects, E14

metabolism, pancreatic polypeptides, E171

nonfiltering, verapamil effects, E410

perfused, conversion of thyroxine to triiodothyronine in, E220

24R,25-dihydroxyvitamin D₃ synthesis, stimulation by metabolites of Vitamin D₃, E359

Kinetics: *see* specific subject and site

L

Lactate
dichloroacetate effects, diabetes, E94

gluconeogenesis, epinephrine and, E294

glycogen and phosphorylase and, liver, E521

metabolism, splanchnic, exercise and fasting effects, E443

Lactation: *see also* Fetus; Pregnancy
adenosine monophosphate, cyclic changes, mammary gland and milk (guinea pig), E549

glucose metabolism during, E351

α_2 -macroglobulins, distribution of, E138

Leucine, insulin release, gastric inhibitory polypeptide effects, E114

L-Leucine methyl ester, stimulation, pancreatic β -cells, E338

Lipids, metabolism, hormone-treated and pregnant rats, E132

Lipogenesis
adipose tissue, physical training effects, E8

glucose metabolism, lactation, E351

Lipolysis
brown adipose tissue, adenosine control (hamster), E555

membrane potential, adipocyte, hormonal modulation of, E266

Lipolytic effects, α -melanocyte-stimulating hormones, three types, E47

Lipoprotein lipase
fat cells, insulin regulation of, E121

insulin-induced obesity, hypophagia, E211

uterine and adipose activity, hormone-treated and pregnant rats, E132

β -Lipoproteins, triphasic pattern of secretion, after adrenalectomy, E60

Liver
extraction, pancreatic polypeptides, awake state, E401

function, portacaval anastomosis, female, E288

glucogen synthase and phosphorylase, response to glucose and glucose analogues, E521

gluconeogenic enzyme activity, ventromedial hypothalamic lesion effects, E14

glucose metabolism, exercise and fasting effects, E443

glucose production
 α -adrenergic stimulation of, E616

epinephrine-stimulated, role of gluconeogenesis, E294

glycogen, insulin-induced obesity, hypophagia, E211

insulin agonist effects, E483

metabolism, pancreatic polypeptides, E171

mitochondrial function, lean and obese, E239

plasma clearance of vitamin D₃, intestinal lymph, E326

vasopressin extraction, E611

vitamin D₃ absorption, E463

vitamin D metabolism, phenobarbital effects, E55

Load, glucose, intraduodenal, insulin-infused diabetes and, E200

Lung, protein synthesis, regulation of, E508

Luteinizing hormone, secretion, atropine and naloxone interactions, E502

Lymph
intestinal
plasma clearance of vitamin D₃, E326

vitamin D₃ absorption, E463

Lysine acetylsalicylate, prostaglandin E effects, insulin secretion, E591

M

α_2 -Macroglobulin, acute-phase, fetomaternal compartments, E138

Mammary gland
glucose metabolism, lactation, E351

milk and, adenosine monophosphate, cyclic changes (guinea pig), E549

Mannitol, hyperosmolarity, cardiac function and, diabetes, E568

Maple syrup urine disease, brain uptake, metabolic substrates, E253

Meconium, release, fetal responses (lamb), E24

α -Melanocyte-stimulating hormones, bioactivities and half-lives, E47

Melanotropic effects, α -melanocyte-stimulating hormone, three types, E47

Metabolic rate
clearance, neurotensin (sheep), E457

epinephrine sensitivity and, women, E431

fasting and refeeding, insulin effects, E160

1-Methyl-3-isobutylxanthine, monocyte insulin receptors, regulation, E494

Methylxanthine, adenosine effects, brown fat metabolism (hamster), E555

Metrial gland, α_2 -macroglobulin distribution, E138

Microtubules, altering agents, developing β -cells, E391

Milk, mammary gland and, adenosine monophosphate, cyclic changes (guinea pig), E549

Mineralocorticoids, muscle fiber response (barnacle), E230

Mitochondria
fatty acid modulation, adipocyte metabolism, E266

hepatic, function, lean and obesity, E239

Monocarboxylic acids, brain uptake, E253

Monocytes, insulin, regulation, E494

Monosodium glutamate, treatment, pituitary dopaminergic receptor increase, E261

Muscle, heart, protein metabolism, diabetes and, E604

Muscle, skeletal
metabolism, dichloroacetate effects, diabetes, E94

protein metabolism, diabetes and, E604

Muscle fiber, aldosterone response (barnacle), E230

N

Naloxone, atropine interaction, anterior pituitary hormone secretion and, E502

Naltrexone, sympathetic nervous system activity and, genetic obesity, E148

Neonate
alloxan toxicity, pancreatic islet cells, E417

pituitary dopaminergic receptors, monosodium glutamate, E261

Neurotensin, metabolism, organ and plasma (sheep), E457

Norepinephrine
glucose production and, hepatic, E616

sympathoadrenal responses, ischemic injury, E67

thermogenesis, fasting effects, brown fat, E582

turnover
obesity and, E87

sympathetic nervous system, genetic obesity, E148

Nucleotides, cyclic, changes, mammary gland and milk (guinea pig), E549

O

Obesity
abnormal sympathetic function and, E87

fasting and refeeding effects, adipose tissue, E74

genetic
diminished sympathetic nervous system activity, E148

thermogenic responses, fasting and refeeding, insulin effects, E160

hepatic mitochondrial function, E239

hyperinsulinemia of, decreased insulin clearance and, E155

hypothalamic hyperinsulinemia and, adrenal glucocorticoid effects, E194

- insulin-induced, recovery from, hypophagia during, E211
- Octanoic acid
 - calcium metabolism and, diabetic heart, E560
 - working heart, fetal (pig), E19
- Organ, metabolism of neurotensin (sheep), E457
- Osteomalacia, phenobarbital treatment effects, vitamin D metabolism, liver, E55
- Ovariectomy, atropine and naloxone interactions, anterior pituitary hormone secretion, E502
- β -Oxidation, fatty acid and glucose utilization, working heart, fetal (pig), E19
- Oxygen
 - availability, cerebral glucose metabolism after hypoxia, E365
 - consumption
 - lateral hypothalamic lesion-induced thermogenesis, E535
 - thermogenesis, fasting effects, brown adipose tissue, E582
 - partial pressure, during hypoxia, E489

P

- Palmitic acid
 - oxidation of, energy expenditure defect, E107
 - working heart, fetal (pig), E19
- Pancreas
 - alloxan toxicity, neonate, E417
 - hormonal secretion from, PHI effects, E313
 - microtubule-altering agents, during development, E391
 - perfusion, L-leucine methyl ester stimulation, E338
 - somatostatin secretion
 - autonomic nervous control of (pig), E542
 - paracrine role in, E598
- Pancreatic cells
 - β -
 - developing, microtubule-altering agent effects, E391
 - L-leucine methyl ester stimulation of, E338
- Pancreatic islets
 - glutamate dehydrogenase, L-leucine methyl ester stimulation of, E338
 - ionic response, aminooxyacetate effects, E38
- Paracrine, somatostatin and, pancreatic, E598
- Parathyroid cells
 - hexose monophosphate shunt and, E468
 - hormone secretion, membrane potential and (bovine), E102
- Parathyroid hormone
 - potassium effects, bone, models, E303
 - receptors: *see* Receptors
 - secretion
 - membrane potential and, parathyroid cells (bovine), E102
 - role of hexose monophosphate shunt, E468
- Peptides: *see also* Polypeptides
 - proopiomelanocortin-derived, adrenalectomy effects, E60
- pH, blood, cerebral glucose transport and, E384
- Phenazine methosulfate, parathyroid hormone secretion and, E468
- Phenobarbital, treatment effects, vitamin D metabolism, liver, E55
- Phenoxybenzamine, nervous control, somatostatin secretion, pancreatic, E542
- Phentolamine, glucose production and, hepatic, E616
- PHI, hormonal secretion and, pancreas, E313
- Phosphatidylinositol, pancreatic growth hormone-releasing factor stimulation, anterior pituitary cells, E587
- Phosphoenolpyruvate carboxykinase, activity in liver and kidney, ventromedial hypothalamic lesion effects, E14
- Phosphofructokinase, working heart, fetal (pig), E19
- Phospholipids, metabolism, anterior pituitary cells, E587
- Phosphorus, homeostasis, kidney adenylate cyclase upregulation, E273
- Phosphorylase
 - exercise effects, glycogen metabolism, E166
 - liver, response to glucose and glucose analogues, E521
- Phosphorylase kinase, cardiac metabolism, spontaneous diabetes, E379
- Physical training: *see* Exercise
- Pituitary-adrenocortical regulation, triphasic β -endorphin response, adrenalectomy, E60
- Pituitary cells, anterior, pancreatic and phospholipid metabolism, E587
- Pituitary gland
 - anterior, phospholipid and pancreatic metabolism, E587
 - dopaminergic receptors, after monosodium glutamate treatment, E261
 - eutopic and heterotopic, thyrotropin and prolactin secretion from, hypothyroidism effects, E32
 - nuclear triiodothyronine receptors, during development, E81
- Pituitary hormone, secretion, atropine and naloxone effects, E502
- Pituitary hormones, during hypoxia, E489
- Placenta: *see also* Fetus; Lactation; Pregnancy
 - protein, distribution of acute-phase α_2 -macroglobulins, E138
- Plasma
 - clearance: *see* Clearance
 - constituents: *see* specific constituent
 - half-life, pancreatic polypeptide metabolism, E171
 - integrated concentration, hyperinsulinemia of obesity, decreased insulin clearance, E155
 - metabolic clearance rate, epinephrine sensitivity and, women, E431
 - metabolism of neurotensin (sheep), E457
 - vasopressin: *see* Vasopressin
- Polypeptides: *see also* Peptides
 - gastric inhibitory, leucine- and arginine-stimulated insulin release and, E114
 - gastrointestinal, hormonal secretion and, pancreas, E313
 - pancreatic
 - hepatic extraction, awake state, E401
 - liver and kidney metabolism of, E171
 - organ and plasma metabolism (sheep), E457
- Portacaval anastomosis, endocrine consequences of, female, E288
- Potassium
 - balance, aldosterone biosynthesis relations, E449
 - bone and, models, E303
 - mitochondrial protein, aldosterone biosynthesis relations, E449
- Potassium ions, conductance, aminooxyacetate effects, pancreatic islets, E38
- Potentials
 - membrane
 - adipocyte, hormonal modulation of, E266
 - parathyroid hormone secretion and (bovine), E102
- Pregnancy: *see also* Fetus; Lactation; Placenta
 - hormone-treatment and, uterine and adipose lipoprotein lipase activity, E132
- Probenecid, thyroxine to triiodothyronine conversion, perfused kidney, E220
- Prolactin
 - monosodium glutamate effects, pituitary dopaminergic receptors, E261
 - secretion, eutopic and heterotopic pituitaries, hypothyroidism effects, E32
- Propranolol
 - glucose production and, hepatic, E616
 - nervous control, somatostatin secretion, pancreatic, E542
- Prostaglandin E, endogenous, insulin secretion and, E591
- Prostaglandins, intrailect, insulin secretion and, E591
- Protein
 - adrenal, potassium-induced, E449
 - binding, vitamin D, intestinal lymph, E326
 - calcium-binding, saturation, glucocorticoid effects, intestinal wall, E143
 - metabolism, muscles, diabetes and, E604
 - secretion, hexose monophosphate shunt and, E468
 - serum, fetomaternal compartments, α_2 -macroglobulin distribution, E138
 - vitamin D-binding, intestinal lymph, E463
- Protein synthesis
 - fat cells, insulin regulation of, E121
 - regulation of, lung, E508
- Pyruvate, glycogen and phosphorylase and, liver, E521

R

- Radioimmunoassay, α_2 -macroglobulin, distribution of, fetomaternal compartments, E138
- Receptors
 - dopaminergic, pituitary, monosodium glutamate treatment, E261
 - monocyte insulin, regulation, E494
 - nuclear triiodothyronine, pituitary, during development, E81
 - parathyroid hormone, kidney adenylate cyclase upregulation, E273
- Refeeding: *see* Feeding
- Renin
 - aldosterone and, verapamil effects, E410
 - secretion, suppression of by insulin, E531
- Reoxygation, glucose metabolism during, cerebral, E365
- Resistance, insulin, cellular basis for, chronic uremia, E178

Respiration, brown adipose tissue, adenosine control (hamster), E555
Respiratory quotient, energy expenditure, defect, E107

Rhythm

circadian, gluconeogenic enzyme activity, ventromedial hypothalamic lesion effects, E14
diurnal, housing and cannulation effects, E515
Ribonucleic acid, messenger, insulin effects, fat cell ribosomes, E121
Ribosomes, fat cell, insulin regulation of, E121

S

Serum albumin, amino acid and insulin effects, lung, E508

Sex differences

endocrine consequences, portacaval anastomosis, E288
epinephrine sensitivity, women, E431
Shunt, hexose monophosphate, parathyroid hormone secretion and, E468
Sodium, transport, muscle fibers (barnacle), E230

Soleus muscle, protein metabolism, diabetes and, E604

Somatostatin

excretion, PHI effects, pancreas, E313
glucose production and, hepatic, E616
pancreatic and phospholipid metabolism, anterior pituitary cells, E587
paracrine role for, pancreatic, E598
secretion, pancreatic, autonomic control of (pig), E542
Sorbital, glycogen and phosphorylase and, liver, E521

Spectrometry, mass, gas chromatography, substrate turnover rate, E308

Splanchnic nerves, somatostatin secretion and, pancreatic (pig), E542

Spleen

glucose metabolism, exercise and fasting, E443
metabolism, pancreatic polypeptides, E171

Starvation: *see* Fasting

Steroidogenesis, angiotensin, calcium efflux and, E281

Steroids, hormone changes, portacaval anastomosis, female, E288

Stress, psychological, adrenocorticotropin and corticosterone and, E515

Substrates

glucose balance and, epinephrine effects, E294
metabolic, brain uptake of, E233

oxidation, epinephrine sensitivity and, women, E431

turnover rate, isotope tracer studies, E308

Succinic hydrogenase, muscle fiber response (barnacle), E230

Sympathetic function, abnormal, obesity and, E87

Sympathetic innervation, somatostatin secretion and, pancreatic, E542

Sympathetic nerves, glucose production, α -adrenergic stimulation, liver, E616

Sympathetic nervous system

adrenal medullary responses and, ischemic injury, E67

diminished activity, genetic obesity, E148

fasting and refeeding, insulin effects, thermogenic responses, E160

T

Temperature, body, colonic, fasting effects, E582

Thermogenesis

adenosine and, brown adipose tissue (hamster), E555

epinephrine sensitivity and, women, E431

insulin effects, fasting and refeeding, E160

lateral hypothalamic lesion-induced, β -adrenergic blockade effects, E535

nonshivering, energy expenditure defect, E107

nonshivering and shivering, glucose tolerance and insulin response, E575

norepinephrine-induced, suppression of by fasting, brown adipose tissue, E582

Thyroidectomy, fasting and thermogenesis, brown adipose tissue, E582

Thyroid hormone

activation, brain, E185

nuclear triiodothyronine receptors and, pituitary, E81

Thyroid hormone analogues, nuclear triiodothyronine receptors and, pituitary, E81

Thyrotropin, secretion, eutopic and heterotopic pituitaries, hypothyroidism effects, E32

Thyrotropin-releasing hormone, pituitary, hypothyroidism effects, E32

Thyroxine

conversion to triiodothyronine, regulation of, perfused kidney, E220

fasting effects, norepinephrine-induced thermogenesis, brown fat, E582

Tissue: *see also* specific type and site conceptus and maternal, glucose production (sheep), E347

Triglycerides, obesity, hypophagia, E211

Triiodothyronine

conversion from thyroxine, regulation of, perfused kidney, E220

plasma concentration, fasting effects, brown fat, E582

tissue neogenesis, hypo- and hyperthyroidism, brain, E185

U

Uremia, chronic, cellular basis for insulin resistance, E178

Urinary clearance, pancreatic polypeptides, liver and kidney, E171

Uterus, lipoprotein lipase activity, hormone-treated and pregnant rats, E132

V

Vagus nerve, somatostatin secretion and, pancreatic (pig), E542

Vasopressin

adrenocorticotropin and blood pressure and, during hypoxia, E489

arginine, fetal responses to (lamb), E24

plasma, chronic clearance, E611

Ventricles: *see* Cerebral ventricles

Verapamil, renin and aldosterone and, E410

Vitamin D

25-hydroxy-, phenobarbital effects, liver, E55

metabolism, phenobarbital effects, liver, E55

Vitamin D₃

absorption and transport, intestinal lymph, E463

25-hydroxy-, absorption and transport, intestinal lymph, E463

metabolites, stimulation of 24R,25-dihydroxyvitamin D₃ synthesis, E359

plasma clearance, intestinal lymph, E326

24R,25-dihydroxy-, synthesis, stimulation by metabolites of vitamin D₃, E359

W

Weight, body, gain, endocrine basis for, fasting or ventromedial hypothalamic lesion, E246

Y

Yolk sac, α_2 -macroglobulin distribution, E138

Author Index to Volume 8

Alberti, K. G. M. M., E200
 Albertse, E. C., E604
 Arief, A. I., E94

Balasse, E. O., E318
 Banta, A. R., E194
 Baran, D. T., E55
 Baskin, D. G., E417
 Battaglia, F. C., E347
 Ben-Galim, E., E373
 Ben-Jonathan, N., E261
 Bennett, S. P., E1
 Berg, T., E326
 Best, J. D., E483
 Besterman, J. M., E508
 Bielefeld, D. R., E560, E568
 Biellier, H. V., E273
 Bier, D. M., E616
 Bjorkman, O., E443
 Boshell, B. R., E560, E568
 Brady, L. J., E239
 Brandt, R., E166
 Brooks, D. P., E611
 Bruce, B. K., E194
 Bukowiecki, L. J., E555, E575
 Burnol, A.-F., E351

Canonic, P. L., E587
 Chasiotis, D., E166
 Chisholm, D. J., E1
 Chou, J., E401
 Chou, M. C. Y., E401
 Cicala, M., E294
 Ciofalo, L., E114
 Clutter, W. E., E616
 Cohen, A. J., E531
 Cohen, D., E171
 Coimbra, C. C., E332
 Conn, A. R., E253
 Corbett, S. W., E535
 Corso, G., E294
 Costello, D. J., E384
 Coulombe, P., E81
 Crofton, J. T., E611
 Cronin, M. J., E587
 Crutchfield, F. L., E185
 Cryer, P. E., E616

Dallman, M. F., E489, E515
 De Gasquet, P., E107
 DeLuca, H. F., E359
 DePalma, L., E114
 De Souza, E. B., E60
 DeVivo, D. C., E373
 Di Pinto, P., E591
 Doi, K., E424
 D'Onofrio, F., E591
 Drake, R. L., E121
 Dratman, M. B., E185
 Drevon, C. A., E326, E463
 Duieland, S., E326, E463
 Dussault, J. H., E81

Efendić, S., E133
 Eiler, H., E143
 Emmanouel, D., E171
 Entman, M., E401
 Eriksson, L. S., E443

Etienne, J., E121

Fagin, K. D., E515
 Faure, R., E81
 Faust, I. M., E74
 Fell, D. I., E253
 Ferguson, D. C., E220
 Ferré, P., E351
 Féry, F., E318
 Field, J. B., E401
 Figlewicz, D. P., E483
 Fish, S., E67
 Fitzpatrick, J. H., Jr., E365
 Fletcher, D. R., E457
 Forte, L. R., E273
 Foster, R., E281
 Frascolla, N., E591
 Fraser, D., E359
 Fray, J. C. S., E531
 Friedman, M. I., E211
 Fripp, R. R., E19
 Frohman, L. A., E194
 Fujimoto, W. Y., E417

Garlick, P. J., E604
 Gilboe, D. D., E365, E384
 Gilboe, D. P., E521
 Girard, J., E351
 Giugliano, D., E591
 Goldberger, A. C., E74
 Gordon, J. T., E185
 Gorray, K. C., E417
 Gray, J. M., E132
 Greenwood, M. R. C., E132
 Greer, M. A., E32
 Groshong, J. C., E114
 Gudinchet, F., E431
 Guthrie, G. P., Jr., E410

Hagopian, W., E171
 Hardy, K. J., E457
 Harris, R. C., E166
 Hartley, C. J., E401
 Hay, W. W., Jr., E347
 Hayashi, M., E582
 Haymond, M. W., E373
 Hedeskov, C. J., E338
 Hegnell, L., E431
 Heiman, M. L., E261
 Helgerud, P., E326, E463
 Herchuelz, A., E38
 Hill, R. S., E391
 Hirsch, J., E74
 Holladay, F. P., E410
 Hollins, B. M., E47
 Holst, J. J., E542
 Hoppel, C. L., E239
 Howard, C., E373
 Huang, X. Y., E502
 Hultman, E., E166

Ikeda, H., E32
 Inoue, S., E14
 Ishida, T., E401

James, D. E., E1
 Jaspán, J. B., E171

Jennings, A. S., E185, E220
 Jensen, S. L., E542
 Jéquier, E., E431
 Joliff, M., E107
 Jones, G., E359

Kalhan, S. C., E308, E476
 Kaplan, S. A., E494
 Kaufman, L. N., E535
 Keesey, R. E., E535
 Keil, L. C., E489
 Kemmer, F. W., E424
 Kimmel, J. R., E401
 King, B. M., E194
 Kintner, D., E365
 Kissebah, A. H., E121
 Klahr, S., E102, E468
 Knudsen, P., E338
 Knuhtsen, S., E542
 Kofod, H., E338
 Kooh, S. W., E359
 Kotchen, T. A., E410
 Kowarski, A. A., E155
 Kraegen, E. W., E1
 Krieger, N. S., E303
 Kutner, M. H., E47

Lai, P. C. W., E138
 Landsberg, L., E67, E148
 Langeluttig, S. G., E273
 Larue-Achagiotis, C., E246
 Laurens, P., E531
 Leach, W. J., E94
 Lebrun, P., E38
 Lee, C., E288
 Lee, M. Y., E266
 Lelièvre, X., E107
 Le Magnen, J., E246
 Lernmark, A., E338
 Leturque, A., E351
 Lever, E. G., E171
 Levin, B. E., E87
 Lewis, R. M., E401
 Lickley, H. L. A., E424
 Lockwood, D. H., E178
 Loizzi, R. F., E549
 Lorscheider, F. L., E138
 Louie, J. A., E365
 Lupien, J., E575
 Lyke, W. A., E143
 Lynn, M. J., E47

MacLeod, R. M., E587
 Magliola, L., E273
 Malaisse, W. J., E38
 Maloff, B. L., E178
 Margolis, S., E155
 Matsui, K., E611
 Mazzaferri, E. L., E114
 McCaleb, M. L., E178
 McCann, S. M., E502
 Meistas, M. T., E155
 Meschia, G., E347
 Meuli, C., E449
 Migliorini, R. H., E332
 Miller, J. P., E616
 Miller, T. B., Jr., E379
 Miller, W. H., Jr., E74

Moffitt, S. D., E47
 Moossa, A., E171
 Morrissey, J. J., E102, E468
 Müller, J., E449
 Musselman, J., E19

Naden, R. P., E24
 Nagai, K., E14
 Nakagawa, H., E14
 Nielsen, O. V., E542
 Niewoehner, C., E521
 Nagasaka, T., E582
 Nuttall, F. Q., E521

Okuda, H., E8
 Ørskov, H., E200

Pace, C. S., E560, E568
 Pain, V. M., E604
 Panrucker, D. E., E138
 Park, R., E94
 Parsons, J. A., E200
 Passariello, N., E591
 Pedersen, J. I., E326, E463
 Penicaud, L., E246
 Pittet, P. G., E431
 Planche, E., E107
 Poelling, R. E., E273
 Polonsky, K. S., E171
 Porter, J. C., E24
 Pugh, W., E171

Radosevich, P. R., E94
 Raff, H., E489
 Ramirez, I., E211
 Rannels, D. E., E508
 Rasmussen, H., E281
 Reddy, G. S., E359
 Rhoten, W. B., E391
 Rockhold, R. W., E611
 Rosen, S. G., E616
 Rosenfeld, C. R., E24
 Rothwell, N. J., E160
 Roy, M. W., E410
 Rudman, D., E47
 Ruel, J., E81

Saccà, L., E294
 Saccomanno, F., E591
 Saville, M. E., E160
 Schuler, H. G., E19
 Schutz, Y., E431
 Schwartz, N. B., E288
 Seto, P., E94
 Shah, S. D., E616
 Sham, R. L., E19
 Share, L., E611
 Sherwin, R. S., E294
 Shih-Hoellwarth, A., E288
 Shinsako, J., E489, E515
 Shulkes, A., E457
 Sjöström, L., E431
 Sonenberg, M., E266
 Sparks, J. W., E347
 Starich, G. H., E114
 Steele, R. D., E253
 Stern, P. H., E303

E634

Stevenson, R. W., E200
Stock, M. J., E160
Sullivan, A. C., E87
Szecówka, J., E313
Szillat, D., E555

Taborsky, G. J., Jr., E483, E598
Tager, H. S., E483
Tallitsch, R. B., E230

Tendler, D., E313
Tharel, G. N., E194
Theen, J. W., E521
Thomas, M. L., E273
Thorner, M. O., E587
Tokuyama, K., E8
Torella, R., E591
Triscari, J., E87
Tserng, K.-Y., E308, E476

Vallano, M. L., E266
Vallerand, A. L., E575
Van Loon, G. R., E60
Vigorito, C., E294
Vranic, M., E424
Vydelingum, N., E121

Waters, L. A., E114
Watkins, C. A., E508

AUTHOR INDEX TO VOLUME 8

Werner, J. C., E19
Whitman, V., E19
Whitson, R. H., E494
Wilkening, R. B., E347
Wiryathian, S., E24

Yanushka, J. M., E384
Young, J. B., E67, E148



American Journal of Physiology: Endocrinology and Metabolism

No. 1. JULY 1983

In vivo insulin sensitivity in the rat determined by euglycemic clamp <i>E. W. Kraegen, D. E. James, S. P. Bennett, and D. J. Chisholm</i>	E1
Fatty acid synthesis in adipose tissues of physically trained rats in vivo <i>K. Tokuyama and H. Okuda</i>	E8
Reciprocal changes in gluconeogenic enzyme activity in liver and kidney by VMH lesion <i>K. Nagai, S. Inoue, and H. Nakagawa</i>	E14
Fatty acid and glucose utilization in isolated, working fetal pig hearts <i>J. C. Werner, V. Whitman, R. R. Fripp, H. G. Schuler, J. Musselman, and R. L. Sham</i>	E19
Cardiovascular effects and clearance of arginine vasopressin in the fetal lamb <i>S. Wiriathian, J. C. Porter, R. P. Naden, and C. R. Rosenfeld</i>	E24
In vitro TSH and PRL secretion from eutopic and heterotopic rat pituitaries: effects of hypothyroidism <i>H. Ikeda and M. A. Greer</i>	E32
Impairment by aminooxyacetate of ionic response to nutrients in pancreatic islets <i>P. Lebrun, W. J. Malaisse, and A. Herchuelz</i>	E38
Three types of α -melanocyte-stimulating hormone: bioactivities and half-lives <i>D. Rudman, B. M. Hollins, M. H. Kutner, S. D. Moffitt, and M. J. Lynn</i>	E47
Effect of phenobarbital treatment on metabolism of vitamin D by rat liver <i>D. T. Baran</i>	E55
A triphasic pattern of parallel secretion of β -endorphin/ β -lipotropin and ACTH after adrenalectomy in rats <i>E. B. De Souza and G. R. Van Loon</i>	E60
Sympathetic nervous system and adrenal medullary responses to ischemic injury in mice <i>J. B. Young, S. Fish, and L. Landsberg</i>	E67
Effects of severe long-term food deprivation and refeeding on adipose tissue cells in the rat <i>W. H. Miller, Jr., I. M. Faust, A. C. Goldberger, and J. Hirsch</i>	E74
Pituitary nuclear triiodothyronine receptors during development in the rat <i>P. Coulombe, J. Ruel, R. Faure, and J. H. Dussault</i>	E81
Studies of origins of abnormal sympathetic function in obese Zucker rats <i>B. E. Levin, J. Triscari, and A. C. Sullivan</i>	E87
Metabolic effects of dichloroacetate in diabetic dogs <i>R. Park, P. R. Radosevich, W. J. Leach, P. Seto, and A. I. Arieff</i>	E94

RAPID COMMUNICATIONS

Dissociation of membrane potential and hormone secretion in bovine parathyroid cells <i>J. J. Morrissey and S. Klahr</i>	E102
---	------

No. 2. AUGUST 1983

Evidence of a defect in energy expenditure in 7-day-old Zucker rat (<i>fa/fa</i>) <i>E. Planche, M. Joliff, P. de Gasquet, and X. Lelievre</i>	E107
Effects of gastric inhibitory polypeptide on leucine- and arginine-stimulated insulin release <i>E. L. Mazzaferri, L. Ciofalo, L. A. Waters, G. H. Starich, J. C. Groshong, and L. DePalma</i>	E114
Insulin regulation of fat cell ribosomes, protein synthesis, and lipoprotein lipase <i>N. Vydelingum, R. L. Drake, J. Etienne, and A. H. Kissebah</i>	E121
Uterine and adipose lipoprotein lipase activity in hormone-treated and pregnant rats <i>J. M. Gray and M. R. C. Greenwood</i>	E132

Distribution of acute-phase α_2 -macroglobulin in rat fetomaternal compartments <i>D. E. Panrucker, P. C. W. Lai, and F. L. Lorscheider</i>	E138
Retention of calcium in intestinal wall of the rabbit by treatment with a glucocorticoid <i>H. Eiler and W. A. Lyke</i>	E143
Diminished sympathetic nervous system activity in genetically obese (<i>ob/ob</i>) mouse <i>J. B. Young and L. Landsberg</i>	E148
Hyperinsulinemia of obesity is due to decreased clearance of insulin <i>M. T. Meistas, S. Margolis, and A. A. Kowarski</i>	E155
Role of insulin in thermogenic responses to refeeding in 3-day-fasted rats <i>N. J. Rothwell, M. E. Saville, and M. J. Stock</i>	E160
Effects of β -blockade on glycogen metabolism in human subjects during exercise <i>D. Chasiotis, R. Brandt, R. C. Harris, and E. Hultman</i>	E166
Predominance of renal and absence of hepatic metabolism of pancreatic polypeptide in the dog <i>W. Hagopian, E. G. Lever, D. Cohen, D. Emmanouel, K. S. Polonsky, W. Pugh, A. Moossa, and J. B. Jaspan</i>	E171
Cellular basis of insulin resistance in chronic uremia <i>B. L. Maloff, M. L. McCaleb, and D. H. Lockwood</i>	E178
Iodothyronine homeostasis in rat brain during hypo- and hyperthyroidism <i>M. B. Dratman, F. L. Crutchfield, J. T. Gordon, and A. S. Jennings</i>	E185
Hypothalamic hyperinsulinemia and obesity: role of adrenal glucocorticoids <i>B. M. King, A. R. Banta, G. N. Tharel, B. K. Bruce, and L. A. Frohman</i>	E194
Metabolic responses to intraduodenal glucose loading in insulin-infused diabetic dogs <i>R. W. Stevenson, H. Ørskov, J. A. Parsons, and K. G. M. M. Alberti</i>	E200

No. 3. SEPTEMBER 1983

ANNOUNCEMENT

Statistics Report #2	E209
----------------------	------

Metabolic concomitants of hypophagia during recovery from insulin-induced obesity in rats <i>I. Ramirez and M. I. Friedman</i>	E211
Regulation of conversion of thyroxine to triiodothyronine in perfused rat kidney <i>D. C. Ferguson and A. S. Jennings</i>	E220
Further observations of aldosterone response in barnacle muscle fibers <i>R. B. Tallitsch</i>	E230
Hepatic mitochondrial function in lean and obese Zucker rats <i>L. J. Brady and C. L. Hoppel</i>	E239
Endocrine basis for weight gain after fasting or VMH lesion in rats <i>L. Penicaud, C. Larue-Achagiotis, and J. Le Magnen</i>	E246
Characterization of α -keto acid transport across blood-brain barrier in rats <i>A. R. Conn, D. I. Fell, and R. D. Steele</i>	E253
Increase in pituitary dopaminergic receptors after monosodium glutamate treatment <i>M. L. Heiman and N. Ben-Jonathan</i>	E261
Hormones modulate adipocyte membrane potential ATP and lipolysis via free fatty acids <i>M. L. Vallano, M. Y. Lee, and M. Sonenberg</i>	E266
Upregulation of kidney adenylate cyclase in the egg-laying hen: role of estrogen <i>L. R. Forte, S. G. Langeluttig, H. V. Biellier, R. E. Poelling, L. Magliola, and M. L. Thomas</i>	E273
Angiotensin-mediated calcium efflux from adrenal glomerulosa cells <i>R. Foster and H. Rasmussen</i>	E281
Endocrine consequences of portacaval anastomosis in female rats <i>A. Shih-Hoellwarth, C. Lee, and N. B. Schwartz</i>	E288
Role of gluconeogenesis in epinephrine-stimulated hepatic glucose production in humans <i>L. Saccà, C. Vigorito, M. Cicala, G. Corso, and R. S. Sherwin</i>	E294

Potassium effects on bone: comparison of two model systems <i>N. S. Krieger and P. H. Stern</i>	E303
--	------

SPECIAL COMMUNICATIONS

Calculation of substrate turnover rate in stable isotope tracer studies <i>K.-Y. Tserng and S. C. Kalhan</i>	E308
---	------

ANNOUNCEMENTS

E312

No. 4. OCTOBER 1983

Effects of PHI on hormonal secretion from perfused rat pancreas <i>J. Szecówka, D. Tendler, and S. Ejfendić</i>	E313
Ketone body turnover during and after exercise in overnight-fasted and starved humans <i>F. Féry and E. O. Balasse</i>	E318
Plasma clearance, transfer, and distribution of vitamin D ₃ from intestinal lymph <i>S. Dueland, P. Helgerud, J. I. Pedersen, T. Berg, and C. A. Drevon</i>	E326
Evidence for a longitudinal pathway in rat hypothalamus that controls FFA mobilization <i>C. C. Coimbra and R. H. Migliorini</i>	E332
L-Leucine methyl ester stimulates insulin secretion and islet glutamate dehydrogenase <i>P. Knudsen, H. Kofod, Å. Lernmark, and C. J. Hedekov</i>	E338
Partition of maternal glucose production between conceptus and maternal tissues in sheep <i>W. W. Hay, Jr., J. W. Sparks, R. B. Wilkening, F. C. Battaglia, and G. Meschia</i>	E347
Glucose metabolism during lactation in the rat: quantitative and regulatory aspects <i>A.-F. Burnol, A. Leturque, P. Ferré, and J. Girard</i>	E351
Stimulation of 24R,25-dihydroxyvitamin D ₃ synthesis by metabolites of vitamin D ₃ <i>G. S. Reddy, G. Jones, S. W. Kooh, D. Fraser, and H. F. DeLuca</i>	E359
Cerebral glucose metabolism during 30 minutes of moderate hypoxia and reoxygenation <i>D. Kintner, J. H. Fitzpatrick, Jr., J. A. Louie, and D. D. Gilboe</i>	E365
Effects of ketosis on glucose flux in children and adults <i>M. W. Haymond, C. Howard, E. Ben-Galim, and D. C. DeVivo</i>	E373
Altered regulation of cardiac glycogen metabolism in spontaneously diabetic rats <i>T. B. Miller, Jr.</i>	E379
Effect of blood pH and ischemia on kinetic constants for cerebral glucose transport <i>J. M. Yanushka, D. J. Costello, and D. D. Gilboe</i>	E384
Differential effects on microtubule-altering agents on β -cells during development <i>R. S. Hill and W. B. Rhoten</i>	E391
Absence of hepatic extraction of pancreatic polypeptide in conscious dogs <i>T. Ishida, M. C. Y. Chou, J. Chou, R. M. Lewis, C. J. Hartley, M. Entman, J. R. Kimmel, and J. B. Field</i>	E401
Effect of verapamil on renin and aldosterone in the dog and rat <i>M. W. Roy, G. P. Guthrie, Jr., F. P. Holladay, and T. A. Kotchen</i>	E410
Cytotoxic effects of alloxan treatment in vitro on monolayer cultures of neonatal rat pancreas <i>K. C. Gorry, D. G. Baskin, and W. Y. Fujimoto</i>	E417

RAPID COMMUNICATIONS

Glucagon suppression improves glucoregulation in moderate but not chronic severe diabetes <i>H. L. A. Lickley, F. W. Kemmer, K. Doi, and M. Vranic</i>	E424
---	------

No. 5. NOVEMBER 1983

Epinephrine sensitivity with respect to metabolic rate and other variables in women <i>L. Sjöström, Y. Schutz, F. Gudinchet, L. Hegnell, P. G. Pittet, and E. Jéquier</i>	E431
--	------

Splanchnic glucose metabolism during leg exercise in 60-hour-fasted human subjects <i>O. Björkman and L. S. Eriksson</i>	E443
A potassium-induced mitochondrial protein related to aldosterone biosynthesis <i>C. Meuli and J. Müller</i>	E449
Organ and plasma metabolism of neurotensin in sheep <i>A. Shulkes, D. R. Fletcher, and K. J. Hardy</i>	E457
Absorption, distribution, and transport of vitamin D ₃ and 25-hydroxyvitamin D ₃ in the rat <i>S. Dueland, J. I. Pedersen, P. Helgerud, and C. A. Drevon</i>	E463
Role of hexose monophosphate shunt in parathyroid hormone secretion <i>J. J. Morrissey and S. Klahr</i>	E468
Estimation of glucose carbon recycling and glucose turnover with [U- ¹³ C]glucose <i>K.-Y. Tserng and S. C. Kalhan</i>	E476
[Leu ¹²⁵ I]insulin is an insulin agonist at the liver in vivo <i>D. P. Figlewicz, J. D. Best, H. S. Tager, and G. J. Taborsky, Jr.</i>	E483
Vasopressin, ACTH, and blood pressure during hypoxia induced at different rates <i>H. Raff, J. Shinsako, L. C. Keil, and M. F. Dallman</i>	E489
In vitro regulation of human monocyte insulin receptors by insulin and 1-methyl-3-isobutylxanthine <i>R. H. Whitson and S. A. Kaplan</i>	E494
Interaction of atropine with naloxone to alter anterior pituitary hormone secretion <i>X. Y. Huang and S. M. McCann</i>	E502
Regulation of protein synthesis in lung by amino acids and insulin <i>J. M. Besterman, C. A. Watkins, and D. E. Rannels</i>	E508
Effects of housing and chronic cannulation on plasma ACTH and corticosterone in the rat <i>K. D. Fagin, J. Shinsako, and M. F. Dallman</i>	E515
Response of liver glycogen synthase and phosphorylase to in vivo glucose and glucose analogues <i>F. Q. Nuttall, J. W. Theen, C. Niewoehner, and D. P. Gilboe</i>	E521

No. 6. DECEMBER 1983

EDITORIAL

Journals in the eighties	E529
<hr/>	
Suppression of renin secretion by insulin: dependence on extracellular calcium <i>A. J. Cohen, P. Laurens, and J. C. S. Fray</i>	E531
Effects of β -adrenergic blockade on lateral hypothalamic lesion-induced thermogenesis <i>S. W. Corbett, L. N. Kaufman, and R. E. Keese</i>	E535
Autonomic nervous control of pancreatic somatostatin secretion <i>J. J. Holst, S. L. Jensen, S. Knuhtsen, and O. V. Nielsen</i>	E542
Cyclic AMP changes in guinea pig mammary gland and milk <i>R. F. Loizzi</i>	E549
Control of brown adipose tissue lipolysis and respiration by adenosine <i>D. Szillat and L. J. Bukowiecki</i>	E555
Altered sensitivity of chronic diabetic rat heart to calcium <i>D. R. Bielefeld, C. S. Pace, and B. R. Boshell</i>	E560
Hyperosmolarity and cardiac function in chronic diabetic rat heart <i>D. R. Bielefeld, C. S. Pace, and B. R. Boshell</i>	E568
Interactions of cold exposure and starvation on glucose tolerance and insulin response <i>A. L. Vallerand, J. Lupien, and L. J. Bukowiecki</i>	E575
Suppression of norepinephrine-induced thermogenesis in brown adipose tissue by fasting <i>M. Hayashi and T. Nagasaka</i>	E582

Human pancreatic GRF stimulates phosphatidylinositol labeling in cultured anterior pituitary cells <i>P. L. Canonico, M. J. Cronin, M. O. Thorner, and R. M. MacLeod</i>	E587
A role for endogenous prostaglandin E in biphasic pattern of insulin release in humans <i>D. Giugliano, P. Di Pinto, R. Torella, N. Frascolla, F. Saccomanno, N. Passariello, and F. D'Onofrio</i>	E591
Evidence of a paracrine role for pancreatic somatostatin in vivo <i>G. J. Taborsky, Jr.</i>	E598
Protein metabolism in skeletal muscle, diaphragm, and heart of diabetic rats <i>V. M. Pain, E. C. Albertse, and P. J. Garlick</i>	E604
Splanchnic clearance of plasma vasopressin in the dog: evidence for prehepatic extraction <i>K. Matsui, L. Share, D. P. Brooks, J. T. Crofton, and R. W. Rockhold</i>	E611
Direct α -adrenergic stimulation of hepatic glucose production in human subjects <i>S. G. Rosen, W. E. Clutter, S. D. Shah, J. P. Miller, D. M. Bier, and P. E. Cryer</i>	E616

<i>Subject Index to Volume 8</i>	E627
<i>Author Index to Volume 8</i>	E633

